

US-PAT-NO: 6469289

DOCUMENT-IDENTIFIER: US 6469289 B1
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TITLE: Ambient light detection technique
for an imaging array

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Abstract Text - ABTX (1):

This invention is directed to a method and apparatus for determining the level of ambient light impinging on a selected number of pixels in an imaging array where each pixel includes a photodiode. The ambient light may be determined by resetting the pixels in the array and by detecting current flow through the photodiodes in a selected number of the pixels as they are being reset. Alternately, the ambient light may be determined by resetting a selected number of the pixels in the array and by detecting current flow through the photodiodes in the selected number of the pixels as they are being reset. The photodiodes are reset by applying a reverse bias voltage across them and the current flow is detected by measuring the current flow through a resistance in parallel to the selected photodiodes. The selected number of pixels may be divided into one or more groups each having at least one pixel, and the pixels in each group may be arranged in specific patterns within the array. The array may be laid out in rows and columns, and the groups may be located in predetermined rows or columns. When only a selected number of pixels are reset and these pixels are divided into groups, the groups may be sequentially reset to permit differentiation between the

groups.

Brief Summary Text - BSTX (15):

This invention is directed to a method and apparatus for determining the level of ambient light impinging on a pixel having a photodiode. The method comprises resetting the photodiode in the pixel and at the same time detecting the current flow through the photodiode as an indication of the ambient light level. The photodiode is reset by applying a reverse bias voltage across it and the current flow is detected by measuring the current flow through a resistance in parallel to the photodiode.

Current US Original Classification - CCOR (1):

250/208.1